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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Federal Communications Commission
Office of the Secretary

In re Applications of)	MM Docket No. 92-2
)	
DRY PRONG EDUCATIONAL)	
BROADCASTING FOUNDATION)	File No. BPED-900305MF
)	
For Modification of Noncommercial)	
Station KVDP(FM), Dry Prong,)	
Louisiana)	
)	
MISSIONARY ACTION PROJECTS)	File No. BPED-900905MK
)	
For Construction Permit for a)	
New Noncommercial FM Station)	
on Channel 210 in Alexandria,)	
Louisiana)	

To: Administrative Law Judge Edward J. Kuhlmann

ENVIRONMENTAL ASSESSMENT OF
MISSIONARY ACTION PROJECTS

Missionary Action Projects ("MAP"), by its attorneys and pursuant to paragraphs 7 and 14 of the Hearing Designation Order, 57 Fed. Reg. 2910, published January 24, 1992, hereby submits an environmental impact statement consistent with Section 1.1311 of the Commission's Rules.¹


¹ Due to the press of other business involving the local engineering consultant responsible for assembling pertinent information in the field, this Environmental Assessment is being submitted one day late. MAP regrets the inconvenience, which was unexpected and unavoidable, and requests leave of the Commission to accept this filing one day out of time.

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Respectfully submitted,

MISSIONARY ACTION PROJECTS

By:



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Attachment

February 21, 1992

ENVIRONMENTAL ASSESSMENT

prepared for
Missionary Action Projects
BPED-900905MK
Alexandria, Louisiana

This statement has been prepared on behalf of Missionary Action Projects (Missionary) in support of an amendment of the pending Missionary application for Construction Permit (BPED-900905MK). It is supplied in response to the Hearing Designation Order (HDO) issued by the Audio Services Division of the Mass Media Bureau in **MM Docket No. 92-2**.

The HDO questioned whether Missionary would ensure that worker exposure to RF energy did not exceed the levels specified in 47 CFR 1.1307. As demonstrated herein, Missionary will provide protection to workers and the general public in accordance with the FCC Rules and ANSI Guideline C95.1-1982. In all respects, this proposal is not believed to have a significant environmental impact as defined under Section 1.1306 of the Commission's Rules.

Nature of the Missionary Proposal

Missionary proposes to increase the height of the existing KWDF(AM) tower from its present height to 111 meters overall height above ground, an increase of approximately 55 meters. The following is based on information provided by the applicant. The site is located in a rural area. This location is not within an officially designated wilderness area or wildlife preserve. It is believed that the proposed construction will not disturb any endangered or threatened species or designated critical habitats, nor does it appear likely that said construction will jeopardize the continued existence of any proposed endangered or threatened species. No destruction or adverse modification of proposed critical habitats, as determined by the Secretary of the Interior pursuant to the Endangered Species Act of 1973, will occur.

The proposed facilities would not affect districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering or culture that are listed in, or eligible for listing in, the National Register of Historic Places. The site is not located near nor will it affect known Indian religious sites.

The proposed transmitter location is not in a designated flood plain. The site is substantially cleared thus it is not anticipated that significant changes in surface features will be required (e.g., wetland fill or water diversion). The existing tower base pier and guy anchors were designed to accommodate a tower of the proposed height, and will be used for the proposed structure.

White strobe lighting is not proposed. If high intensity lighting is subsequently required, shutters or shields will be installed to minimize impact on the surrounding (rural) area.

Human Exposure to Electromagnetic Energy

The proposed transmitting system will comply with the guidelines for human exposure to RF radiation contained in ANSI guideline C95.1-1982. The FCC has adopted the ANSI guideline as the maximum allowable exposure level for humans in the vicinity of transmitting antennas. FCC OST Bulletin No. 65 sets forth a means of determining whether a proposed facility meets the ANSI guideline limits. Under Commission policy, a facility may be presumed to comply with the ANSI guideline if it satisfies the criteria set forth in OST Bulletin No. 65.

The proposed tower is employed by KWDF, Ball, Louisiana for its AM antenna. KWDF currently operates on 840 kilohertz with power of 10 kilowatts, non-directional, during daytime hours only. The tower base is currently fenced at a distance of not less than 7 meters, in accordance with Table 1, Appendix D, of OST Bulletin No. 65.

To accommodate this proposal, it is proposed to increase the height of the KWDF radiator. In order to maintain the existing KWDF coverage and interference contours, the power employed by KWDF will be reduced to compensate for increased radiator efficiency. The present KWDF tower has an efficiency of 282 mV/m at one kilometer for one kilowatt of power; at the proposed tower height, the efficiency of the tower is estimated to be 315 mV/m at one kilometer for one kilowatt. Accordingly, to maintain the present coverage, only 8 kilowatts of power will be required once the tower height is increased. Table 1 of Appendix D to OST Bulletin No. 65 contains no entry for 8 kilowatt transmitter power, but it is noted that the 20% power reduction will necessarily result in a decrease in RF energy levels at the fenceline. To gauge the potential RF energy levels to be expected, the electromagnetic modeling program MININEC3 was employed¹. MININEC3 was instructed to compute the near-field magnetic and electric field strength values at one meter above ground for a 106 meter AM radiator of 0.8 meter equivalent uniform radius operating at 8 kilowatts on 840 kilohertz. The radiator was divided into 20 segments for computation purposes. At the 7 meter fence distance, the computed electric field strength is 59 volts per meter, representing 9.3 percent of the ANSI guideline maximum. At the same distance, the computed magnetic field strength is 0.24 Amps per meter, representing 15.2 percent of the ANSI guideline maximum.

Missionary proposes to employ a 2 bay FM antenna operating with effective radiated power of 3 kilowatts, circularly polarized. The antenna will be mounted at 106 meters above ground. For this power and height, calculations performed using worst case downward radiation assumptions and the formulae of OST Bulletin No. 65 reveal that the equivalent plane wave power density at ground level will be less than 1.8 percent of the applicable ANSI guideline maximum. If the actual antenna elevation pattern were considered, the RF energy level at the ground would be significantly reduced.

¹ Mininec is a numerical modeling program developed by the Naval Postgraduate School and released through the National Technical Information Service. The program computes electromagnetic currents and radiation values for antenna elements defined by the user.

When contributions of both KWDF and the proposed FM application are considered, the total exposure at any location greater than 7 meters from the tower base will be less than 20 percent of the ANSI guideline for continuous exposure to RF energy. Since the tower base is fenced at a distance of at least 7 meters, the ANSI guideline will be satisfied with respect to the general public. Access within this fence is restricted to employees and service contractors of KWDF and the proposed FM station.

Missionary will adopt, with KWDF, policies designed to protect workers who enter the tower base fence. These policies will require that all necessary steps be taken to prevent excessive worker exposure, and may include (but not be limited to) time limits on entry to areas having excessive RF energy levels, or ceasing operation of one or both stations as appropriate. Workers will not be permitted on the tower unless KWDF is shut down. Workers will not be permitted in any area on the tower where the proposed FM station would exceed ANSI guidelines unless the FM station is shut down. Areas within the base fence for which time limits must be imposed will be determined through measurement or numerical prediction. Missionary will ensure that such warning signs are posted.

Thus, it is demonstrated that the Missionary application complies with the Commission's Rules regarding human exposure to RF radiation. The Missionary proposal therefore may be categorically excluded from environmental processing under Section 1.1306 of the FCC Rules.

Certification

Under penalty of perjury, I do hereby state that the foregoing has been prepared by me and that it true and correct to the best of the knowledge and belief.



William P. Suffa, P.E.
Virginia Registration #18300
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February 21, 1992

CERTIFICATE OF SERVICE

I hereby certify that I have, this 21st day of February, 1992, served copies of the foregoing "Environmental Assessment of Missionary Action Projects" on the following persons by first class United States Mail, postage prepaid:

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